SEQUENCE LISTING

<110> Takai, Yoshimi
       Irie, Kenji
       Asada, Masanori

<120> ADIP PROTEIN AND USE THEREOF

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<150> JP 2002-284263
<151> 2002-09-27

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<170> PatentIn version 3.1

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Leu Cys Thr Glu Asn Lys Asn Leu Ser Gln Tyr Thr Ser Glu Thr Lys
            15   20   25

atg tct ccg tcc agt ttg tac tcc cag caa gtt ctg tgc tct tca gta   208
Met Ser Pro Ser Ser Leu Tyr Ser Gln Gln Val Leu Cys Ser Ser Val
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cct tta tcc aaa aac gtg cat ggt gtt ttc ggt gtc ttc tgc aca gga   256
Pro Leu Ser Lys Asn Val His Gly Val Phe Gly Val Phe Cys Thr Gly
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gag aac att gaa caa agt att tcc tat ctt gat cag gag ctg acc acc   304
Glu Asn Ile Glu Gln Ser Ile Ser Tyr Leu Asp Gln Glu Leu Thr Thr
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ttc ggg ttt cct tcc ttg tat gaa gaa tcc aaa agt aaa gag gca aag   352
Phe Gly Phe Pro Ser Leu Tyr Glu Glu Ser Lys Ser Lys Glu Ala Lys
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aga gaa tta aat ata gtc gct gtt ctg aac tgt atg aac gag ctg ctc   400
Arg Glu Leu Asn Ile Val Ala Val Leu Asn Cys Met Asn Glu Leu Leu
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gtg ctt cag cgg aag aac ctg ctg gcc cag gag agc gtg gag aca cag   448
Val Leu Gln Arg Lys Asn Leu Leu Ala Gln Glu Ser Val Glu Thr Gln
        110   115   120

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aac ttg aag ctg ggc agt gac atg gac cac ctg cag agc tgc tac gcc    496
Asn Leu Lys Leu Gly Ser Asp Met Asp His Leu Gln Ser Cys Tyr Ala
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aaa ctt aag gag cag ttg gaa acg tcc agg cgg gag atg atc ggg ctt    544
Lys Leu Lys Glu Gln Leu Glu Thr Ser Arg Arg Glu Met Ile Gly Leu
140                 145                 150                 155

caa gag aga gac agg cag ctg cag tgc aag aac agg agt ttg cat cag    592
Gln Glu Arg Asp Arg Gln Leu Gln Cys Lys Asn Arg Ser Leu His Gln
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ctc ctg aag aat gag aaa gat gag gta caa aaa tta caa aat atc ata    640
Leu Leu Lys Asn Glu Lys Asp Glu Val Gln Lys Leu Gln Asn Ile Ile
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gcc agc cgg gct act cag tat aat cat gat gtg aag agg aag gag cgt    688
Ala Ser Arg Ala Thr Gln Tyr Asn His Asp Val Lys Arg Lys Glu Arg
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gaa tat aat aag cta aag gag cgc ctg cat cag ctc gtt atg aac aag    736
Glu Tyr Asn Lys Leu Lys Glu Arg Leu His Gln Leu Val Met Asn Lys
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aag gat aaa aac ata gcc atg gat gtt tta aat tat gtg ggt cga gct    784
Lys Asp Lys Asn Ile Ala Met Asp Val Leu Asn Tyr Val Gly Arg Ala
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gat ggc aaa cga ggc tca tgg agg act gac aaa aca gaa gcc agg aat    832
Asp Gly Lys Arg Gly Ser Trp Arg Thr Asp Lys Thr Glu Ala Arg Asn
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gaa gat gag atg tac aaa att ctg ttg aat gat tat gag tac cgc cag    880
Glu Asp Glu Met Tyr Lys Ile Leu Leu Asn Asp Tyr Glu Tyr Arg Gln
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aag cag atc ctg atg gag aac gcg gag ctg aag aag gtc ctc cag cag    928
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atg aag aag gag atg atc tct ctc ctg tct cct cag aag aag aag ccc    976
Met Lys Lys Glu Met Ile Ser Leu Leu Ser Pro Gln Lys Lys Lys Pro
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agg gaa aga gca gag gac ggc aca ggc act gtt gct atc tcc gat ata    1024
Arg Glu Arg Ala Glu Asp Gly Thr Gly Thr Val Ala Ile Ser Asp Ile
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gaa gat gac tct ggg gaa ctg agc aga gac agc gtg tgg ggc ctt tcc    1072
Glu Asp Asp Ser Gly Glu Leu Ser Arg Asp Ser Val Trp Gly Leu Ser
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tgt gac act gtg aga gag cag ctg aca aac agc atc agg aaa cag tgg    1120
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aga att ttg aaa agt cat gta gaa aaa ctc gat aac caa gct tcg aag    1168
Arg Ile Leu Lys Ser His Val Glu Lys Leu Asp Asn Gln Ala Ser Lys
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gta cac tca gag ggc ctt aat gag gag gac gtc atc tca cga caa gac    1216
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Glu Met Ile Lys Ala Gln Gln Gln Leu Leu Gln Gln Gln Leu Ala Thr
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acg tgt gat gat gac acc acc tca ctg ttg cga gac tgt tac ttg ctg      1360
Thr Cys Asp Asp Asp Thr Thr Ser Leu Leu Arg Asp Cys Tyr Leu Leu
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gaa gaa aag gaa cgc ctt aaa gaa gag tgg acc ctt ttt aaa gag caa      1408
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aaa aag aat ttt gag aga gaa agg cga agc ttt aca gaa gct gcc att      1456
Lys Lys Asn Phe Glu Arg Glu Arg Arg Ser Phe Thr Glu Ala Ala Ile
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cga ttg ggg ttg gag aga aag gcg ttt gaa gaa gag cga gcc agc tgg      1504
Arg Leu Gly Leu Glu Arg Lys Ala Phe Glu Glu Glu Arg Ala Ser Trp
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gta aag cag cag ttt tta aac atg acg aac ttt gac cac cag aac tca      1552
Val Lys Gln Gln Phe Leu Asn Met Thr Asn Phe Asp His Gln Asn Ser
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gaa aat gtg aaa ctt ttc agt gcc ttc tca gga agt tct gat cca gac      1600
Glu Asn Val Lys Leu Phe Ser Ala Phe Ser Gly Ser Ser Asp Pro Asp
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aat ctt ata gtc cac tca cgg cca cgg caa aag aag cta cac agt gtg      1648
Asn Leu Ile Val His Ser Arg Pro Arg Gln Lys Lys Leu His Ser Val
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gct aat ggg gtg cca gct tgc aca tca aaa ctg act aaa tct ctt cct      1696
Ala Asn Gly Val Pro Ala Cys Thr Ser Lys Leu Thr Lys Ser Leu Pro
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gcc tca cct tct act tca gac ttt cgc cag aca cat tca tgt gtg tct      1744
Ala Ser Pro Ser Thr Ser Asp Phe Arg Gln Thr His Ser Cys Val Ser
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gaa cac agt tcc atc agt gtg ctg aat ata act cct gaa gaa agt aaa      1792
Glu His Ser Ser Ile Ser Val Leu Asn Ile Thr Pro Glu Glu Ser Lys
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cca agt gag gtt gca aga gaa agc acg gat cag aag tgg agc gtg cag      1840
Pro Ser Glu Val Ala Arg Glu Ser Thr Asp Gln Lys Trp Ser Val Gln
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tcg agg ccc agc tcg cgg gag ggg tgc tac agc gga tgc tcc tcg gcc      1888
Ser Arg Pro Ser Ser Arg Glu Gly Cys Tyr Ser Gly Cys Ser Ser Ala
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ttc agg agc gct cac ggg gac cga gat gac tta cct taa atgtgcgggc      1937
Phe Arg Ser Ala His Gly Asp Arg Asp Asp Leu Pro
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Ser Ile Ser Tyr Leu Asp Gln Glu Leu Thr Thr Phe Gly Phe Pro Ser
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Leu Tyr Glu Glu Ser Lys Ser Lys Glu Ala Lys Arg Glu Leu Asn Ile
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Val Ala Val Leu Asn Cys Met Asn Glu Leu Leu Val Leu Gln Arg Lys
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Asn Leu Leu Ala Gln Glu Ser Val Glu Thr Gln Asn Leu Lys Leu Gly
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Leu Glu Thr Ser Arg Arg Glu Met Ile Gly Leu Gln Glu Arg Asp Arg
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Gln Tyr Asn His Asp Val Lys Arg Lys Glu Arg Glu Tyr Asn Lys Leu
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Lys Glu Arg Leu His Gln Leu Val Met Asn Lys Lys Asp Lys Asn Ile
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Ala Met Asp Val Leu Asn Tyr Val Gly Arg Ala Asp Gly Lys Arg Gly
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Ser Trp Arg Thr Asp Lys Thr Glu Ala Arg Asn Glu Asp Glu Met Tyr
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Lys Ile Leu Leu Asn Asp Tyr Glu Tyr Arg Gln Lys Gln Ile Leu Met
            260   265   270

Glu Asn Ala Glu Leu Lys Lys Val Leu Gln Gln Met Lys Lys Glu Met
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Ile Ser Leu Leu Ser Pro Gln Lys Lys Lys Pro Arg Glu Arg Ala Glu
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Asp Gly Thr Gly Thr Val Ala Ile Ser Asp Ile Glu Asp Asp Ser Gly
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Glu Leu Ser Arg Asp Ser Val Trp Gly Leu Ser Cys Asp Thr Val Arg
            325   330   335

Glu Gln Leu Thr Asn Ser Ile Arg Lys Gln Trp Arg Ile Leu Lys Ser
            340   345   350

His Val Glu Lys Leu Asp Asn Gln Ala Ser Lys Val His Ser Glu Gly
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Leu Asn Glu Glu Asp Val Ile Ser Arg Gln Asp His Glu Gln Glu Thr
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Glu Lys Leu Glu Leu Glu Ile Glu Arg Cys Lys Glu Met Ile Lys Ala
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Gln Gln Gln Leu Leu Gln Gln Gln Leu Ala Thr Thr Cys Asp Asp Asp
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Thr Thr Ser Leu Leu Arg Asp Cys Tyr Leu Leu Glu Glu Lys Glu Arg
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Leu Lys Glu Glu Trp Thr Leu Phe Lys Glu Gln Lys Lys Asn Phe Glu
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Arg Glu Arg Arg Ser Phe Thr Glu Ala Ala Ile Arg Leu Gly Leu Glu
    450   455   460

Arg Lys Ala Phe Glu Glu Glu Arg Ala Ser Trp Val Lys Gln Gln Phe
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Leu Asn Met Thr Asn Phe Asp His Gln Asn Ser Glu Asn Val Lys Leu
            485   490   495

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Phe Ser Ala Phe Ser Gly Ser Ser Asp Pro Asp Asn Leu Ile Val His
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Ser Arg Pro Arg Gln Lys Lys Leu His Ser Val Ala Asn Gly Val Pro
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Ala Cys Thr Ser Lys Leu Thr Lys Ser Leu Pro Ala Ser Pro Ser Thr
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Ser Asp Phe Arg Gln Thr His Ser Cys Val Ser Glu His Ser Ser Ile
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Ser Val Leu Asn Ile Thr Pro Glu Glu Ser Lys Pro Ser Glu Val Ala
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Arg Glu Ser Thr Asp Gln Lys Trp Ser Val Gln Ser Arg Pro Ser Ser
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                     Met Gly Asp Trp Met Thr Val Thr Asp Pro Val
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ctg tgt aca gaa aac aaa aat ctc tct caa tat acc tca gaa aca aag    159
Leu Cys Thr Glu Asn Lys Asn Leu Ser Gln Tyr Thr Ser Glu Thr Lys
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atg tct ccg tca agt tta tac tcg cag caa gta ctg tgc tct gca aca    207
Met Ser Pro Ser Ser Leu Tyr Ser Gln Gln Val Leu Cys Ser Ala Thr
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cct tta tcc aag aat gtg cat ggt gtt ttc agt gcc ttc tgc aca gga    255
Pro Leu Ser Lys Asn Val His Gly Val Phe Ser Ala Phe Cys Thr Gly
    45                  50                  55

gag aac atc gaa cag agt att tcg tat ctt gat cag gaa ctg act acc    303
Glu Asn Ile Glu Gln Ser Ile Ser Tyr Leu Asp Gln Glu Leu Thr Thr
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cga gag tta agt ata gtt gct ctt ctg aac tgc atg aat gag ctg ctt     399
Arg Glu Leu Ser Ile Val Ala Leu Leu Asn Cys Met Asn Glu Leu Leu
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gtg ctt cag cgg aag aac ctc ctg gcc cag gaa agc gtg gag aca cag     447
Val Leu Gln Arg Lys Asn Leu Leu Ala Gln Glu Ser Val Glu Thr Gln
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aat ctg aag ctg ggc agt gac atg gac cac ctg cag agc tgc tac gcc     495
Asn Leu Lys Leu Gly Ser Asp Met Asp His Leu Gln Ser Cys Tyr Ala
        125                 130                 135

aaa ctt aag gaa cag ttg gag gcc tcc agg cga gag atg atc agc ctt     543
Lys Leu Lys Glu Gln Leu Glu Ala Ser Arg Arg Glu Met Ile Ser Leu
140                 145                 150                 155

cag gag aga gac aga cag cta cag tgc aaa aac agg aat ttg cat cag     591
Gln Glu Arg Asp Arg Gln Leu Gln Cys Lys Asn Arg Asn Leu His Gln
                160                 165                 170

ctc ctg aaa aac gag aaa gaa gag gta caa aaa tta caa aat atc ata     639
Leu Leu Lys Asn Glu Lys Glu Glu Val Gln Lys Leu Gln Asn Ile Ile
            175                 180                 185

gcc agt cgg gct act cag tat aat cat gat gtg aag aga aag gag cgg     687
Ala Ser Arg Ala Thr Gln Tyr Asn His Asp Val Lys Arg Lys Glu Arg
        190                 195                 200

gag tac aat aaa ctg aag gag cgt ctg cat cag ctt gtt atg aac aag     735
Glu Tyr Asn Lys Leu Lys Glu Arg Leu His Gln Leu Val Met Asn Lys
        205                 210                 215

aag gat aaa aat ata gcc atg gac gtt tta aat tac gtg ggc cga gtg     783
Lys Asp Lys Asn Ile Ala Met Asp Val Leu Asn Tyr Val Gly Arg Val
220                 225                 230                 235

gat gga aag cga ggc tcc tgg agg act gat aaa aca gaa gcc agg aat     831
Asp Gly Lys Arg Gly Ser Trp Arg Thr Asp Lys Thr Glu Ala Arg Asn
                240                 245                 250

gaa gat gaa atg tac aaa att ctg ctg aat gat tat gag tac cgc cag     879
Glu Asp Glu Met Tyr Lys Ile Leu Leu Asn Asp Tyr Glu Tyr Arg Gln
                255                 260                 265

aag cag atc ctg ctg gag aat gcg gag ctg aag aag gtc ctc cag cag     927
Lys Gln Ile Leu Leu Glu Asn Ala Glu Leu Lys Lys Val Leu Gln Gln
        270                 275                 280

atg aag aaa gag atg atc tct ctc ctt tct cct caa aag aag aaa ccc     975
Met Lys Lys Glu Met Ile Ser Leu Leu Ser Pro Gln Lys Lys Lys Pro
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300                 305                 310                 315

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tgt gac act gtc agg gag cag ctt aca aac agc atc agg aag cag tgg      1119
Cys Asp Thr Val Arg Glu Gln Leu Thr Asn Ser Ile Arg Lys Gln Trp
        335                    340                    345

aga att ctg aaa agc cat gtg gaa aaa ctt gat aac caa gct tca aag      1167
Arg Ile Leu Lys Ser His Val Glu Lys Leu Asp Asn Gln Ala Ser Lys
        350                    355                    360

gta cac tca gag ggc ttt cat gaa gag gac gtc atc tca cga caa gac      1215
Val His Ser Glu Gly Phe His Glu Glu Asp Val Ile Ser Arg Gln Asp
        365                    370                    375

cat gag caa gag act gag aaa ctg gag ctg gag att gag cgg tgt aaa      1263
His Glu Gln Glu Thr Glu Lys Leu Glu Leu Glu Ile Glu Arg Cys Lys
380                    385                    390                    395

gag atg atc aag gct cag cag cag ctc tta cag caa cag ctg gcc act      1311
Glu Met Ile Lys Ala Gln Gln Gln Leu Leu Gln Gln Gln Leu Ala Thr
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gcg tgt gat gac gac acc acc tca ctg ttg cga gac tgt tac ttg ctt      1359
Ala Cys Asp Asp Asp Thr Thr Ser Leu Leu Arg Asp Cys Tyr Leu Leu
            415                    420                    425

gaa gaa aag gaa cgc ctt aaa gaa gag tgg tcc ctt ttt aaa gag caa      1407
Glu Glu Lys Glu Arg Leu Lys Glu Glu Trp Ser Leu Phe Lys Glu Gln
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aaa aag aat ttt gag aga gaa aga cga agc ttt aca gaa gct gct att      1455
Lys Lys Asn Phe Glu Arg Glu Arg Arg Ser Phe Thr Glu Ala Ala Ile
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cgc ttg ggg ttg gag aga aag gcg ttt gag gaa gag cga gcc agc tgg      1503
Arg Leu Gly Leu Glu Arg Lys Ala Phe Glu Glu Glu Arg Ala Ser Trp
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gtg aag cag cag ttt tta aac atg acg acc ttt gat cac cag aac tca      1551
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Asn Leu Ile Val His Pro Arg Pro Arg Gln Lys Lys Pro His Ser Val
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gct aat ggg gtg cca gct tgc aca tcc aaa ctg gct aag tct ctt ccg      1695
Ala Asn Gly Val Pro Ala Cys Thr Ser Lys Leu Ala Lys Ser Leu Pro
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Thr Ser Pro Ser Asp Phe Cys Pro Ser Arg Ser Cys Val Ser Glu His
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Val His Gly Val Phe Ser Ala Phe Cys Thr Gly Glu Asn Ile Glu Gln
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Ser Ile Ser Tyr Leu Asp Gln Glu Leu Thr Thr Phe Gly Phe Pro Ser
65                  70                  75                  80

Leu Tyr Glu Glu Ser Lys Ser Lys Glu Ala Lys Arg Glu Leu Ser Ile
            85                  90                  95

Val Ala Leu Leu Asn Cys Met Asn Glu Leu Leu Val Leu Gln Arg Lys
            100                 105                 110

Asn Leu Leu Ala Gln Glu Ser Val Glu Thr Gln Asn Leu Lys Leu Gly
        115                 120                 125

Ser Asp Met Asp His Leu Gln Ser Cys Tyr Ala Lys Leu Lys Glu Gln
        130                 135                 140

Leu Glu Ala Ser Arg Arg Glu Met Ile Ser Leu Gln Glu Arg Asp Arg
145                 150                 155                 160

Gln Leu Gln Cys Lys Asn Arg Asn Leu His Gln Leu Leu Lys Asn Glu
            165                 170                 175

Lys Glu Glu Val Gln Lys Leu Gln Asn Ile Ile Ala Ser Arg Ala Thr
            180                 185                 190

Gln Tyr Asn His Asp Val Lys Arg Lys Glu Arg Glu Tyr Asn Lys Leu
        195                 200                 205

Lys Glu Arg Leu His Gln Leu Val Met Asn Lys Lys Asp Lys Asn Ile
    210                 215                 220

Ala Met Asp Val Leu Asn Tyr Val Gly Arg Val Asp Gly Lys Arg Gly
225                 230                 235                 240

Ser Trp Arg Thr Asp Lys Thr Glu Ala Arg Asn Glu Asp Glu Met Tyr
            245                 250                 255

Lys Ile Leu Leu Asn Asp Tyr Glu Tyr Arg Gln Lys Gln Ile Leu Leu
        260                 265                 270

Glu Asn Ala Glu Leu Lys Lys Val Leu Gln Gln Met Lys Lys Glu Met
        275                 280                 285

Ile Ser Leu Leu Ser Pro Gln Lys Lys Lys Pro Arg Glu Arg Ala Glu
    290                 295                 300

Asp Ser Thr Gly Thr Val Val Ile Ser Asp Val Glu Asp Asp Ala Gly
305                 310                 315                 320

Glu Leu Ser Arg Asp Gly Val Trp Ser Leu Ser Cys Asp Thr Val Arg
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Glu Gln Leu Thr Asn Ser Ile Arg Lys Gln Trp Arg Ile Leu Lys Ser
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His Val Glu Lys Leu Asp Asn Gln Ala Ser Lys Val His Ser Glu Gly
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Phe His Glu Glu Asp Val Ile Ser Arg Gln Asp His Glu Gln Glu Thr
    370             375             380

Glu Lys Leu Glu Leu Glu Ile Glu Arg Cys Lys Glu Met Ile Lys Ala
385             390             395             400

Gln Gln Gln Leu Leu Gln Gln Gln Leu Ala Thr Ala Cys Asp Asp Asp
            405             410             415

Thr Thr Ser Leu Leu Arg Asp Cys Tyr Leu Leu Glu Glu Lys Glu Arg
            420             425             430

Leu Lys Glu Glu Trp Ser Leu Phe Lys Glu Gln Lys Lys Asn Phe Glu
            435             440             445

Arg Glu Arg Arg Ser Phe Thr Glu Ala Ala Ile Arg Leu Gly Leu Glu
    450             455             460

Arg Lys Ala Phe Glu Glu Glu Arg Ala Ser Trp Val Lys Gln Gln Phe
465             470             475             480

Leu Asn Met Thr Thr Phe Asp His Gln Asn Ser Glu Asn Val Lys Leu
            485             490             495

Phe Ser Ala Phe Ser Gly Ser Ser Asp Pro Asp Asn Leu Ile Val His
            500             505             510

Pro Arg Pro Arg Gln Lys Lys Pro His Ser Val Ala Asn Gly Val Pro
            515             520             525

Ala Cys Thr Ser Lys Leu Ala Lys Ser Leu Pro Thr Ser Pro Ser Asp
    530             535             540

Phe Cys Pro Ser Arg Ser Cys Val Ser Glu His Ser Pro Val Ser Ala
545             550             555             560

Leu Thr Val Thr Pro Glu Glu Thr Lys Pro Asn Glu Val Gly Arg Glu
            565             570             575

Ser Thr Asp Gln Lys Trp Ser Val Val Ser Arg Pro Ser Ser Arg Glu
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Gly Cys Tyr Gly Gly Cys Ser Ser Ala Tyr Thr Ser Ser His Val Glu
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Arg Asp Asp Leu Pro
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